

a strain element having a width narrower than the width of the metal coil is formed on at least one of an inner circumferential surface and an outer circumferential surface of the metal coil; and

an electrode is formed on a surface of the strain element.

12. (Amended) An actuator provided with a strain element having a property of a piezoelectric inverse effect, wherein:

both end portions of the strain element are spirally wound wherein a portion between said spirally wound ends is not spirally wound; and

electrodes are formed on an inner circumferential surface and an outer circumferential surface of the strain element.

13. (Amended) An actuator provided with a strain element having a property of a piezoelectric inverse effect, wherein:

the actuator includes a metal coil having both ends spirally wound wherein a portion between said spirally wound ends is not spirally wound;

the strain element is formed on at least one of an inner circumferential surface and an outer circumferential surface of the metal coil; and

an electrode is formed on a surface of the strain element.

14. (Amended) An actuator provided with a strain element having a property of a piezoelectric inverse effect, wherein:

the strain element is spirally wound, said strain element being formed of a dielectric material;

electrodes are formed on an inner circumferential surface and an outer circumferential surface of the strain element; and

a capacitor formed from said dielectric material in a parallel electrical connection with the strain element.

15. (Amended) An actuator provided with a strain element having a property of a piezoelectric inverse effect, wherein:

the actuator includes a spirally wound metal coil;

the strain element is formed on at least one of an inner circumferential surface and an outer circumferential surface of the metal coil, said strain element being formed of a dielectric material;

an electrode is formed on a surface of the strain element; and

a capacitor formed from said dielectric material in a parallel electrical connection with the strain element.

16. (Amended) An actuator according to any one of claims 1 to 13, further comprising a dielectric acting as a capacitor in parallel with the strain element.

17. (Amended) An actuator according to any one of claims 1 to 15, wherein the strain element is a laminated strain element.

26. (New) An actuator provided with a strain element having a property of a piezoelectric inverse effect, wherein:

the actuator includes a spirally wound metal coil;

the strain element is formed on at least one of an inner circumferential surface and an outer circumferential surface of the metal coil, said strain element being formed of a dielectric material;

an electrode is formed on a surface of the strain element; and

a portion of said strain element and said electrodes is cut off and not polarized wherein said cut off portion forms a capacitor formed from said dielectric material in a parallel electrical connection with the strain element and connected to said electrodes by a second electrode portion.